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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/913,848	08/20/2001	Hideyuki Takahashi		5499

7590 12/17/2004

Stevens Davis Miller & Mosher  
1615 L Street NW Suite 850  
Washington, DC 20036

EXAMINER

TIEU, BENNY QUOC

ART UNIT

PAPER NUMBER

2642

DATE MAILED: 12/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/913,848	TAKAHASHI ET AL.	
Examiner	Art Unit		
Benny Q. Tieu	2642		

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 20 August 2001.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)  Claim(s) 1-9 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) 1-9 is/are allowed.

6)  Claim(s) \_\_\_\_\_ is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a))

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 8/20/01

4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_ .

5)  Notice of Informal Patent Application (PTO-152)

6)  Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This application is in condition for allowance except for the following formal matters:

In claims 7 and 8, line 1, "A gain controlling means" should be changed to --A gain controlling method--.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

#### ***Allowable Subject Matter***

2. The following is an examiner's statement of reasons for allowance: Hasegawa (U.S. Patent No. 4,939,788) teaches an FM receiver which includes, in an FM receiver having a multistage of IF amplitude limit amplification circuit, a gain control amplification circuit upon which IF signals not subjected to the amplitude limit in the IF amplitude limit amplification circuit are applied, a level detection circuit for level-detecting the output signals of the gain control amplification circuit, a control signal generating circuit for generating the output signals for controlling the gain of the gain control amplification circuit in accordance with the output signal of the level detection circuit, and is characterized in that the output signals of the level detection circuit shows the electric field strength of the received signal. The IF signals not subjected to the amplitude limit are first amplified by the gain control amplification circuit. The amplified IF signals are level-detected by the level detection circuit and are introduced to the output terminal as electric field strength signals. Simultaneously, the output signal of the level

detection circuit is applied upon the control signal generating circuit, which generates a control signal correspondingly. The control signal is applied upon the gain control amplification circuit to effect a gain control operation. The gain control is effected so that the gain of the gain control amplification circuit may be lowered as the electric field strength of the received signal becomes large, whereby the dynamic range of the electric field strength signal is enlarged (column 2, lines 15-45). Sugayama (U.S. Patent No. 4,955,077) teaches an improved radio comprising a first detecting means for detecting the intensity of the electric field of a signal received by the radio; a second detecting means for detecting whether or not a broad band automatic gain control (AGC) is operating; and a means for changing the tuning condition of an RF tuning circuit in a small extent in response to the signals outputted from the first and second detecting means (column 1, lines 41-51). However, prior art of record fails to teach, or renders obvious, alone or in combination, a SINR measuring section measures a ratio between a desired signal and an interference signal based on an output signal of an A/D converter and an output signal of an interference canceller. An absolute electric field intensity calculator calculates absolute electric field intensity of a desired signal based on said ratio between the desired signal and the interference signal and electric field intensity of said received signal. A determination section determines the relationship between electric field intensity of said desired signal and a preset target object in terms of the valve large and small. A gain coefficient calculator calculates a gain coefficient based on the determination result of the determination section, and controls a gain of an AGC section. This makes it possible to perform AGC accurately and to prevent deterioration of reception quality as detailed and directly claimed in all independent claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benny Q. Tieu whose telephone number is (703) 305-2360. The examiner can normally be reached on Monday-Friday: 6:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar can be reached on (703) 305-4731. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**BENNY TIEU**  
**PRIMARY EXAMINER**

Art Unit 2642  
December 13, 2004